

REMARKS

EP 0974966 considered with Nishikawa et al

Claims 1, 4-9 and 18 were rejected as being unpatentable over EP 0974966 (hereafter EP '966) considered with Nishikawa et al (U.S. 4,860,272). We submit however that neither EP '966 nor Nishikawa, separately or in combination disclose 1) a control unit for counting execution of recording data on the optical disc in units of bits and generating a count value indicating the amount of data that is recorded and 2) a control unit connected to the counter for holding the count value of the counter immediately before the interruption when the recording of data is interrupted, as recited in each of independent claims 1, 9 and 18.

Rather, EP '966 discloses storing time information of Q channel data of a subcode and address information indicating the position in an EFM frame in the time information into the address memory 15a when a buffer under-run is likely to occur (see paragraph [0036]). However, EP '966 does not teach or suggest that the address information is counted in units of bits. Although EP document determines the terminal end of the last frame of the recorded data by counting channel bits (see paragraph [0042]), it is not possible to restart recording in units of bits using the address information and the count information of channel bits. In contrast, the control unit as recited in independent claims 1, 9 and 18 controls restart of the recording of data based on the held count value generated by counting execution of recording data in units of bits. Therefore, it is possible to restart recording at the interrupted position in units of bits properly.

Nishikawa discloses supplying address data, which is demodulated by the subcode demodulation circuit 130, to the track jump detection circuit 131 to detect the track jump. However, like EP '966, Nishikawa does not teach or suggest that the address information is counted in units of bits. Accordingly, it is not possible to restart recording in units of bits using the address information. Consequently, we believe that the present invention is not obvious over the EP document in view of Nishikawa.

Hayashi '616 or '213 considered with Nishikawa et al

Claims 1, 4-9 and 18 were rejected as being unpatentable over either Hayashi (U.S. 6,487,616 or 6,594,213) further considered with Nishikawa et al.

We submit however that neither Hayashi '616 nor Hayashi '213 disclose 1) a control unit for counting execution of recording data on the optical disc in units of bits and generating a count value indicating the amount of data that is recorded and 2) a control unit connected to the counter for holding the count value of the counter immediately before the interruption when the recording of data is interrupted, as recited in each of independent claims 1, 9 and 18.

Rather, the Hayashi references disclose that the address is recorded in correspondence with the sector unit when the recording is interrupted. However, the Hayashi references do not disclose or suggest that the address information is counted in units of bits. Accordingly, it is not possible to restart recording in units of bits using the address information. Consequently, we believe that the present invention is not obvious over Hayashi in view of Nishikawa.

The Examiner also rejected dependent claims 2, 3, 10-17, 19 and 20 as being unpatentable over the art applied above to claims 1, 4-9 and 18, and further in view of Lin. Lin discloses a frame counter 220 for counting EFM frame n-1 (n: target frame) and a bit counter 240 used to count the starting point (see column 4, lines 6-24).

We submit that because Lin does not disclose the features recited in independent claims 1, 9 and 18 and found to be lacking from EP '966 and the Hayashi references, we believe that claims 2, 3, 10-17, 19 and 20 are patentable for at least the reasons that claims 1, 9, and 18 are patentable.

Applicant : Koji Hayashi et al.
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Enclosed is a \$790.00 check for the Request for Continued Examination fee and a \$120.00 check for the Petition for Extension of Time fee. Please apply any other charges or credits to deposit account 06-1050, referencing Attorney Docket Number 10449-043001.

Respectfully submitted,

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